

REMARKS

Claims 1-12 and 21-28 were pending in this application.

Claims 1-4, 6-8, 10, and 12 have been rejected.

Claims 5 and 11 have been objected to.

Claims 1, 7, and 21 have been amended as shown above.

Claims 1-12 and 21-28 remain pending in this application.

Reconsideration and full allowance of Claims 1-12 and 21-28 are respectfully requested.

I. STATUS OF CLAIMS

The Office Action states that Claims 1-8 and 10-12 are pending. This is incorrect. Claim 9 has never been cancelled, and Claims 21-28 were added in the Applicant's response filed on July 31, 2006 and the Request for Continued Examination filed on August 30, 2006. As a result, Claims 1-12 and 21-28 are pending in this application. Accordingly, the Applicant respectfully requests examination and full allowance of Claims 1-12 and 21-28.

II. REJECTION UNDER 35 U.S.C. § 103

The Office Action rejects Claims 1-4, 6-8, 10, and 12 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,776,808 to Muller et al. ("*Muller*") in view of U.S. Patent Publication No. 2002/0076880 to Yamada et al. ("*Yamada*"). This rejection is respectfully traversed.

In *ex parte* examination of patent applications, the Patent Office bears the burden of

establishing a *prima facie* case of obviousness. (*MPEP* § 2142; *In re Fritch*, 972 F.2d 1260, 1262, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992)). The initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention is always upon the Patent Office. (*MPEP* § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984)). Only when a *prima facie* case of obviousness is established does the burden shift to the Applicant to produce evidence of nonobviousness. (*MPEP* § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993)). If the Patent Office does not produce a *prima facie* case of unpatentability, then without more the Applicant is entitled to grant of a patent. (*In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Grabiak*, 769 F.2d 729, 733, 226 U.S.P.Q. 870, 873 (Fed. Cir. 1985)).

A *prima facie* case of obviousness is established when the teachings of the prior art itself suggest the claimed subject matter to a person of ordinary skill in the art. (*In re Bell*, 991 F.2d 781, 783, 26 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1993)). To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to

make the claimed invention and the reasonable expectation of success must both be found in the prior art, and not based on the Applicant's disclosure. (*MPEP* § 2142).

Muller recites a technique where a polysilicon plug 66 is formed in a substrate 40. (*Figures 2A-2H; Col. 3, Line 65 – Col. 5, Line 47*). However, the polysilicon plug 66 of *Muller* has a top surface that is parallel to the top surface of a polish stop layer 46 and side surfaces that are completely covered. (*Figure 2H; Col. 5, Lines 43-47*). The polysilicon plug 66 of *Muller* does not have any sides that remain exposed for further processing. *Muller* therefore fails to disclose, teach, or suggest placing a "layer of oxidation material" over a portion of deposited polysilicon material, where the layer of oxidation material contacts a "top" and a "side" of the portion of deposited polysilicon material (where the side extends from the top to a silicon dioxide liner or a substrate). As a result, *Muller* fails to disclose, teach, or suggest these elements of Claims 1 and 7.

Yamada recites a technique for forming a DRAM cell, which includes forming an insulation film 24 on a buried strap 23. (*Pars. [0041]-[0042]*). However, the insulation film 24 is formed only within a notch on the top surface of the buried strap 23. The insulation film 24 is not formed within and does not contact any outer side of the buried strap 23. *Yamada* therefore fails to disclose, teach, or suggest placing a "layer of oxidation material" over a portion of deposited polysilicon material, where the layer of oxidation material contacts a "top" and a "side" of the portion of deposited polysilicon material (where the side extends from the top to a silicon dioxide liner or a substrate). As a result, *Yamada* fails to disclose, teach, or suggest these elements of Claims 1 and 7.

For these reasons, the proposed *Muller-Yamada* combination fails to disclose, teach, or suggest the Applicant's invention as recited in Claims 1 and 7 (and their dependent claims). Accordingly, the Applicant respectfully requests withdrawal of the § 103 rejection and full allowance of Claims 1-4, 6-8, 10, and 12.

SUMMARY

The Applicant respectfully asserts that all pending claims in this application are in condition for allowance and respectfully requests full allowance of the claims.

If any outstanding issues remain or if the Examiner has any suggestions for expediting allowance of this application, the Applicant respectfully invites the Examiner to contact the undersigned at the telephone number indicated below or at *wmunck@munckbutrus.com*.


The Commissioner is hereby authorized to charge any fees connected with this communication (including any extension of time fee) or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

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